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60/168,614	2 December 1999 (02.12.1999)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

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[Continued on next page]

(54) Title: HUMAN SECRETORY MOLECULES

(57) Abstract: The present invention provides purified secretory polynucleotides (sptm). Also encompassed are the polypeptides (SPTM) encoded by sptm. The invention also provides for the use of sptm, or complements, oligonucleotides, or fragments thereof in diagnostic assays. The invention further provides for vectors and host cells containing sptm for the expression of SPTM. The invention additionally provides for the use of isolated and purified SPTM to induce antibodies and to screen libraries of compounds and the use of anti-SPTM antibodies in diagnostic assays. Also provided are microarrays containing sptm and methods of use.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/12 C07K14/705 C12Q1/68 G01N33/50 A01K67/027

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N C07K C12Q G01N A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EM_EST [Online] EMBL ID HSA29735, AC AA029735, 20 August 1996 (1996-08-20) HILLIER L ET AL.: "ze95c03.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:366724 5', mRNA sequence." XP002162283 Note: 97.3 % nt sequence identity with SEQ ID NO:1 in 669 nt overlap. the whole document --- -/--	1-19

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
8 March 2001	15.06.01

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	van de Kamp, M

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EM_EST [Online] EMBL ID AW009420, AC AW009420, 13 September 1999 (1999-09-13) STRAUSBERG R: "ws82d11.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2504469 3', mRNA sequence." XP002162284 Note: 99.6 % nt sequence identity with SEQ ID NO:1 in 547 nt overlap. the whole document ---	1-19
A	WO 99 03990 A (FLORENCE KIMBERLY A ;HUMAN GENOME SCIENCES INC (US); FENG PING (US) 28 January 1999 (1999-01-28) page 2, line 1-8 claims 1-23 ---	1-19
A	WO 99 18204 A (KATO SEISHI ;PROTEGENE INC (JP); SEKINE SHINGO (JP); SAGAMI CHEM R) 15 April 1999 (1999-04-15) page 3, line 1-17 claims 1-6 ---	1-19
A	WO 99 31236 A (BOUGUELERET LYDIE ;GENSET SA (FR); DUCLERT AYMERIC (FR); DUMAS MIL) 24 June 1999 (1999-06-24) page 3, line 23 -page 10, line 15 claims 1-20 -----	1-19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/25610

Box I Observations where certain claims were found unsearchable (Continuati n of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Claims 1-19 (all partially)

Remark on Pr test

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: Invention 1, claims 1-19 (all partially)

An isolated polynucleotide selected from the group consisting of a polynucleotide consisting of, or comprising the polynucleotide sequence of SEQ ID NO:1, homologs and variants, complementary polynucleotides, fragments and RNA equivalents of said polynucleotide. A composition for the detection of the expression of secretory polynucleotides comprising a polynucleotide as said, and methods of detecting said polynucleotide. A recombinant polynucleotide comprising a polynucleotide as said, operably linked to a promoter sequence, a cell and a transgenic organism comprising said recombinant polynucleotide, and a method for producing a secretory polypeptide by expressing said recombinant polynucleotide. A purified secretory polypeptide encoded by a polynucleotide comprising the polynucleotide sequence of SEQ ID NO:1, and an antibody binding to said polypeptide. A method of identifying a test compound which binds to said polypeptide. A microarray comprising a polynucleotide comprising at least 60 contiguous nucleotides of a polynucleotide as said, and a method for generating a transcript image using said microarray. A method for screening a compound for effectiveness in altering expression of a polynucleotide as said, and a method for assessing toxicity of a test compound using a probe comprising at least 20 contiguous nucleotide of a polynucleotide as said.

2. Claims: Inventions 2-63, claims 1-19 (all partially)

As invention 1, but concerning SEQ ID NOs 2-63, respectively.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 00/25610

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9903990 A	28-01-1999	AU 8404598 A	10-02-1999
		EP 1027430 A	16-08-2000
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